



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,655	05/31/2006	Gunter Endres	212/890US	3938
23371 7590 02/18/2010 CROCKETT & CROCKETT, P.C. 26020 ACERO SUITE 200 MISSION VIEJO, CA 92691				
EXAMINER				
GRABOWSKI, KYLE ROBERT				
ART UNIT		PAPER NUMBER		
3725				
MAIL DATE		DELIVERY MODE		
02/18/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/581,655

Applicant(s)

ENDRES ET AL.

Examiner

Kyle Grabowski

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This non-final office action is in response to the RCE and claims filed on 01/21/10

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-15 and 19 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Nowhere in the originally filed disclosure does it state that the covering layers do not obscure the underlying metal layer. Obscure by definition means to conceal or make dim, dark, or indistinct. Providing a white layer with less than 5% transparency above is obscuring the metal layer.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As stated above it is unclear what is being

claimed. The overlaying cover layers do obscure the underlying metal layer as described by the specification and by their property of less than 5% transmittance. The examiner believes the applicant intends to mean "does not obscure" in that the underlying metal layer may be seen in some circumstances (reflected and transmitted light) however this is not the plain meaning of the word.

Rejections - 35 USC § 102/ 35 USC § 103

6. Claims 1-15 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Scantlin (US 3,802,101).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Scantlin (US 3,802,101).

9. In respect to claim 1 and 2, Scantlin discloses a security element comprising: a core sheet 8 (which may constitute a metal layer e.g. aluminum; Col. 7, 8-14), which therein is introduced identifiers 6 in the form of patterns; the metal layer 8 is disposed

between translucent coating layers 10 and 12 having "sufficiently low transmissivity to obscure the coded regions [identifiers 6] of the core sheet 8 from view by the naked eye" (Col. 5, 66-67). Although Scantlin does not disclose a "watermark effect" while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). (MPEP 2114). The structure disclosed in Scantlin will perform this effect (see Abstract) (i.e. the "coded region" identifiers transmit more light than its surroundings causing a "positive" image, and upon reflection, reflect less than their surroundings). Furthermore, Scantlin does not disclose the coating layers 10 and 12 having a visible spectral range of less than 10% or more specifically less than 5% however the structure as disclosed is at least capable of performing this function (i.e. this visible spectral range depends on the amount and intensity of light, surrounding ambient light, etc.). Furthermore, because the transmissivity is positive and allows some light as discussed above, the transmittance is *sufficient* for viewing the metal layer and identifiers in reflected light (i.e. the transmittance does not impede the difference in reflection between the coded hole regions and the core region).

10. In respect to claim 3, Scantlin discloses that the coating layers 10 and 12 may be made of a white polyvinyl chloride (therefore appearing white in reflected light).

11. In respect to claims 4 and 5, Scantlin discloses that the identifiers occur through transparencies in the metal layer (holes) which are punched through the core sheet 8

(Col. 3, 35-37). Regardless, although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

12. In respect to claim 6, Scantlin doesn't disclose that the coating layers do not exhibit an appreciable absorption of laser radiation however features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Again, this limitation depends largely on the amount of radiation used, and what one considers to be "appreciable absorption".

13. In respect to claims 7 and 8, Scantlin discloses that the identifiers (holes) 6 convey coded information (Col. 5, 55-56), which can be construed to personal data, data relating to the data carrier, *or the like*.

14. In respect to claim 9, Scantlin discloses a "screened form" of identifiers 6 embodied as dots (Fig. 1).

15. In respect to claim 10, Scantlin discloses the metal layer 8 is imprinted on one of the coating layers 10 and 12 (Fig. 2).

16. In respect to claim 11, Scantlin does not disclose that the metal layer is vapor deposited however although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

17. In respect to claim 12, Scantlin discloses that the coating layers 10 and 12 are provided with protective layers 14 and 16 which are transparent (see Fig. 2).

18. In respect to claims 13 and 14, Scantlin discloses the security element embodied on the interior of an identification card (Fig. 1).

19. In respect to claims 15, Scantlin discloses additional indicia 4, protected underneath the protective layer 14 and therefore may be employed as a further security feature.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

22. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scantlin (US 3,802,101).

23. In respect to claim 1 and 2, Scantlin discloses a security elements comprising: a core sheet 8 (which may constitute a metal layer e.g. aluminum; Col. 7, 8-14), which therein is introduced identifiers 6 in the form of patterns; the metal layer 8 is disposed between translucent coating layers 10 and 12 having "sufficiently low transmissivity to obscure the coded regions [6] of the core sheet 8 from view by the naked eye" (Col. 5, 66-67). Although Scantlin does not disclose a "watermark effect" while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). (MPEP 2114). The structure disclosed in Scantlin will perform this effect (see Abstract) (i.e. the "coded region" identifiers transmit more light than its surroundings causing a "positive" image, and upon reflection, reflect less than their surroundings).

24. Scantlin does not explicitly disclose that the coating layers 10 and 12 have a visible spectral range (synonymous with transmissivity of visible light) of less than 10%, or more specifically, less than 5%, however the claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product

not of innovation but of ordinary common sense. Scantlin discloses that the coded regions (holes) have a higher transmissivity than the surrounding core sheet regions, such that "as radiant energy impinges upon the core sheet 8, it passes through the holes 6 to convey coded information but does not pass through core sheet 8" (Col. 5, 53-55); thus it can be inferred that, at a given frequency or intensity, the holes 6 have a given transmissivity while the surrounding region of core sheet 8 has zero transmissivity. Scantlin further discloses that the coating layers 10 and 12 have a transmissivity higher than the portion of the core sheet 8 having the lowest transmissivity (in this case zero, for the surrounding region of the core sheet); it can be further inferred, then, that the coating layers 10 and 12 have a transmissivity greater than zero, yet, it is desired that the transmissivity is "sufficiently low transmissivity to obscure the coded regions [6] of the core sheet 8 from view by the naked eye" (Col. 5, 66-67). Because the transmissivity is positive and allows some light as discussed above, the transmittance is *sufficient* for viewing the metal layer and identifiers in reflected light (i.e. the transmittance does not impede the difference in reflection between the coded hole regions and the core region).

25. By the applicant's own admission "the present invention depends precisely on the fact that the foils [coating layers] are not completely nontransparent, but rather admit a certain, if small, portion of the light when illuminated from the back of the card" (Spec, Pg 6). Scantlin discloses this: coating layers which are not completely nontransparent (having a transmissivity greater than zero) and therefore admitting a small portion of light. Routine experimentation, such as changing the thicknesses of the coating layers

(and thus their transmissivity) would result in numerical transmissivities less than 5%, which one of ordinary skill would find to be sufficiently low to obscure underlying indicia.

26. In respect to claim 3, Scantlin discloses that the coating layers 10 and 12 may be made of a white polyvinyl chloride (therefore appearing white in reflected light).

27. In respect to claims 4 and 5, Scantlin discloses that the identifiers occur through transparencies in the metal layer (holes) which are punched through the core sheet 8 (Col. 3, 35-37). Regardless, although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

28. In respect to claim 6, Scantlin doesn't disclose that the coating layers do not exhibit an appreciable absorption of laser radiation however features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Again, this limitation depends largely on the amount of radiation used, and what one considers to be "appreciable absorption".

29. In respect to claims 7 and 8, Scantlin discloses that the identifiers (holes) 6 convey coded information (Col. 5, 55-56), which can be construed to personal data, data relating to the data carrier, *or the like*.

30. In respect to claim 9, Scantlin discloses a "screened form" of identifiers 6 embodied as dots (Fig. 1).

31. In respect to claim 10, Scantlin discloses the metal layer 8 is imprinted on one of the coating layers 10 and 12 (Fig. 2).

32. In respect to claim 11, Scantlin does not disclose that the metal layer is vapor deposited however although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

33. In respect to claim 12, Scantlin discloses that the coating layers 10 and 12 are provided with protective layers 14 and 16 which are transparent (see Fig. 2).

34. In respect to claims 13 and 14, Scantlin discloses the security element embodied on the interior of an identification card (Fig. 1).

35. In respect to claims 15, Scantlin discloses additional indicia 4, protected underneath the protective layer 14 and therefore may be employed as a further security feature.

36. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scantlin (US 3,802,101) in view of Hurier (US 5,651,615). Scantlin does not disclose the additional indicia 4 featuring a luminescent substance however Hurier teaches using a

luminescent ink for indicia 38 (Fig. 3) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the indicia taught in Scantlin with luminescent ink in view of Hurier to provide high forgery-proofness through excitation under ultraviolet light (0043).

Response to Arguments

37. Applicant's arguments filed on 01/21/10 have been fully considered but they are not persuasive. The gist of the newly filed arguments is that the Scantlin cover sheets cannot perform the function of not obscuring the identifiers in reflected light as required in amended claim 1. The examiner respectfully disagrees.

38. Firstly, the examiner believes that structurally the present invention and Scantlin are identical (Scantlin even discloses the exact same material and color used for the covering layers: white polypropylene). In an attempt to distinguish the present application from Scantlin, functional recitations are provided that the applicant believes the structure of Scantlin cannot preform.

39. The applicant argues that "specifically, Scantlin discloses that the transmissivity of these cover sheets is sufficiently low to obscure the coded regions in the core sheet 8 from view by the naked eye (see col. 5, ii. 64-67). The intended purpose of the obstruction of the coded information contained within the card is to hide the information from the credit card user, who will probably not even be aware it is there (see col. 3, ii.

57-61). The cover sheets are therefore designed to hide the coded regions from the user and do not serve to display any feature to the naked eye."

40. Although the examiner agrees with this statement, that the cover sheets are made to obscure the coded regions from the naked eye, the examiner believes that the present invention functions in the same way, namely *obscuring* the metal layer (*obscuring* having distinction from making the underlying metal layer invisible) and therefore does not distinguish Scantlin from the present invention.

41. Further, the examiner believes that the intention of the amended claim (which is also rejected under USC 112 1st and 2nd paragraph) is to recite that upon reflected light, the underlying metal layer is not completely invisible (not obscured). The structure of Scantlin also discloses this functionality: wherein "[the] coded regions may take the form of holes which are punched in the core sheet [underlying metal layer]. Thus, when the coded identification card is exposed to the radiant energy, the energy passes through the outer adherent covering, and through the holes in the core sheet but does not pass through the core sheet itself. The energy passing through the core sheet may then be received by sensors which translate the presence or absence of radiant energy into data bits which are fed to a computer.". This explicitly states that transmitted light (which includes UV or infrared light, or "radiant energy") passes through the coded areas and not the metal layer, thereby making the metal layer visible (or at least readable, by machine).

42. Now to the directly address the new limitation. If the radiant energy is not passing through the metal layer, it is being absorbed and reflected "In reflected light" is the same as transmitted light, only the viewpoint of the observer is on the other side of the device (along with the light source). There is more radiant energy reflecting back off the metal layer (as evidenced by zero transmittance) than the coded region (allowing transmittance) therefore allowing viewing.

Conclusion

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Grabowski whose telephone number is (571)270-3518. The examiner can normally be reached on Monday-Thursday, every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571)272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kyle Grabowski/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art
Unit 3725